

Allen-Bradley 1769 Series Service Manual

1769-OW16

1. Description

The 1769-OW16 is Compact I/O expansion module. This module has Sixteen (16) Relay output channels. This module is designed for an operating voltage range of 5 - 265VAC and 5 - 125V DC. module is compatible for use with MicroLogix 1500 and CompactLogix controllers. Technical specifications for 1769-OW16

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation / Allen-Bradley
Brand	Allen-Bradley
Part	Number/Catalog No. 1769-OW16
Product	Family: Compact I/O
Product	Line CompactLogix
Product	Type: Discrete Output Module
Module	Type Relay Output Module
Operating	Voltage 5 to 265 Volts AC or 5 to 125 Volts DC
No.	of outputs: Sixteen (16)
Enclosure	Type Open
No.	of Groups: 2
No.	of Channels per group: 8
Communication	Cable 16 Point
Outputs	16 Normally Open (8 points/group)
Operating	Temperature 0 to 60 degrees Celsius
Compatible	controllers: MicroLogix 1500; CompactLogix controllers
Series	A and B
Output	Type: AC/DC normally open relay
Shipping	Weight 2 pounds
Operating	Voltage range: 5 to 265V ac 5 to 125V dc
Shipping	Dimensions 8 x 8 x 5 inches
Signal	delay, On: 10 ms
Wire	Type: Copper 99
Solid	Wire Size 22 to 14 AWG
Bus	Current draw, 5.1 V: 125 mA
Bus	Current draw, 24 V: 100 mA
Heat	Dissipation: 2.83 Watts
UPC	10612598286239
Slot	width: 1
Stranded	Wire Size 22 to16 AWG
Current	per Module 20 Amps Description
The	

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Brand Allen-Bradley

Part Number/Catalog No. 1769-OW16

Product Family: Compact I/O

Product Line CompactLogix

Product Type: Discrete Output Module

Module Type Relay Output Module

Operating Voltage 5 to 265 Volts AC or 5 to 125 Volts DC

No. of outputs: Sixteen (16)

Enclosure Type Open

No. of Groups: 2

No. of Channels per group: 8

Communication Cable 16 Point

Outputs 16 Normally Open (8 points/group)

Operating Temperature 0 to 60 degrees Celsius

Compatible controllers: MicroLogix 1500; CompactLogix controllers

Series A and B

Output Type: AC/DC normally open relay

Shipping Weight 2 pounds

Operating Voltage range: 5 to 265V ac 5 to 125V dc

Shipping Dimensions 8 x 8 x 5 inches

Signal delay, On: 10 ms

Wire Type Copper-90

Solid Wire Size 22 to 14 AWG

Bus Current draw, 5.1 V: 125 mA

Bus Current draw, 24 V: 100 mA

Heat Dissipation: 2.83 Watts

UPC 10612598286239

Slot width: 1

Stranded Wire Size 22 to 16 AWG

Current per Module 20 Amps Description

The Allen-Bradley 1769-OW16 is a CompactLogix digital AC/DC relay contact I/O module. This output module has Sixteen (16) Normally Open contacts, with Eight (8) points per group. The module's contact ratings are 0.22 A at 125 Volts DC, 28VA, and 7.5 A at 240 Volts AC, 1800VA for make and 0.75 Amps at 240 Volts AC, 180VA for Break. Its operating voltage ranges are 5 to 265 Volts AC and 5 to 125 Volts DC. The module's current draw is 180 mA at 24 Volts and 205 mA at 5.1 Volts. It also has a 20A maximum current per module and 2.5A maximum current per point. The maximum power dissipation of the 1769-OW16 module is 4.75 Watts, the maximum off-state leakage is 0 mA, and the minimum on-state current is 10 mA at 5 Volts DC. It has an operating temperature range of 0 to 60 degrees Celsius and a non-condensing relative humidity range of 5 to 95%. The 1769-OW16 module has an operating shock of around 30G and while operating, it can withstand vibrations of around 2G. Note that this module has a delay of 10 milliseconds for both the on and off states. The 1769-OW16 provides flexibility and is compatible with various applications such as with a CompactLogix controller. Additionally, the 1769-OW16 can be used as an expansion I/O in a MicroLogix 1500 controller assembly and in an assembly with either a 1769-ADN DeviceNet or 1769-AENTR Ethernet adapter. The 1769-OW16 I/O device requires its own power supply, except when connected to a MicroLogix 1500 base. Either 22 to 14 AWG solid cable or a 22 to 16 AWG stranded connection cable can be used with the 1769-OW16 module. It has a power supply distance rating of 8 modules. The only power supplies compatible with this module are the 1769-PA2, the 1769-PB2, the 1769-PA4, and the 1769-B4, and it can only be mounted with a panel or DIN rail mount. The approximate dimensions of the 1769-OW16 module are 4.65 x 2.07 x 3.43 inches, with the height increased to 5.43 inches when using the 138-millimeter mounting tabs. This module's weight is around 2 pounds.

The 1769-OW16 is a Sixteen (16) channel Relay output module. This module is manufactured by Allen-Bradley for the 1769 CompactLogix product family. This module has Two (2) groups of Eight (8) channels each. This input groups are individually isolated which permits the group to operate with different or similar voltage category.

This module has Sixteen (16) form A dry contacts, with each channel capable of up to 2.5A per point. This allows the module to drive electrical and inductive loads with higher current rating. This module is also practical for use in system that operate in different voltage categories. The 1769-OW16 connects to the MicroLogix or CompactLogix communication bus. Install this module to any adjacent module in the controller assembly. The communication bus also carries the supply voltage that powers the Compact I/O module. It occupies single slot in the chassis of either controller system.

When used with MicroLogix 1500 as expansion I/O, the module is installed after the base unit or to any adjacent Compact I/O. Only Compact I/O modules are supported by MicroLogix 1500. If used with CompactLogix system, the module is installed as a local or expansion I/O. It is inserted to the communication by by installing to an adjacent I/O module and locking the bus levers.

These parameters include module inhibition, packet interval, slot assignment and revision number. Detailed configuration is performed by accessing the module's input data files. The data files store the status of the input addresses as well as module diagnostics. The catalog number 1769-OW16 is reserved for a compact 16-point AC/DC relay output module made by Allen-Bradley/Rockwell Automation in the CompactLogix series. The module operates on both AC/DC voltages with an operating voltage range of 5 to 265 Volts AC or 5 to 125 Volts DC. The module has 16 outputs and it is built from high-quality materials that are specially made for use in industrial settings. The 1769-OW16 module has a maximum bus current draw of 205 milliamps at 5 Volts DC line and 180 milliamps at 24 Volts DC. The total heat dissipation of the module is 4.75 Watts, in terms of Watts per point plus the minimum Watts

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level with all the points energized. In addition to that, the 1769-OW16 module has a maximum signal delay for a resistive load of 10 milliseconds for both the turn-on or the turn-off states.

The 1769-OW16 module has an off-state leakage of 0 milliamps and an on-state current of 10 milliamps at 5 Volts DC. The maximum continuous current per point is 2.5 Amps and the maximum continuous current per common is 10 Amps. In addition to that, the maximum continuous current per module is 20 Amps. The 1769-OW16 module has a specified power supply distance rating of 8 modules, meaning that the module should never be more than 8 modules away from the power supply unit. The 1769-OW16 module has isolated output groups which include Group One with the outputs from 0 to 7 and Group Two with the outputs from 8 to 15. The output point to bus isolation of the 1769-OW16 module is 1836 Volts AC for 1 second or 2596 Volts for 2 seconds.

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